

What is claimed is:

1. A non-pressurized liquid supply system for supplying liquid to a plurality of liquid treatment units, the system comprising:
  - 5 an inflow stage including at least one inflow pipe, the inflow stage having an inflow stage cross-sectional area; and
  - an outflow stage in communication with the inflow stage, the outflow stage including a plurality of outflow pipes for feeding liquid to the plurality of liquid treatment units, the outflow pipes splitting liquid flow from the inflow stage and having
  - 10 an outflow stage cross-sectional area substantially equivalent to the inflow stage cross-sectional area.
2. The non-pressurized liquid supply system of claim 1 wherein the outflow stage and the inflow stage co-operate to maintain substantially constant liquid flow
- 15 characteristics throughout the non-pressurized liquid supply system.
3. The non-pressurized liquid supply system of claim 1 wherein the inflow pipes and the outflow pipes are substantially cylindrical.
- 20 4. The non-pressurized liquid supply system of claim 3 wherein the outflow pipes all have the same diameter.
5. The non-pressurized liquid supply system of claim 3 wherein the inflow pipes all have the same diameter.
- 25 6. The non-pressurized liquid supply system of claim 1 wherein the number of outflow pipes is greater than the number of inflow pipes.

7. The non-pressurized liquid supply system of claim 1 wherein the number of inflow pipes is greater than the number of outflow pipes.
8. The non-pressurized liquid supply system of claim 1 further comprising an intermediate stage having an intermediate stage cross-sectional area and including a plurality of intermediate pipes, the intermediate pipes being selected so that the intermediate stage cross-sectional area is substantially equivalent to the inflow stage cross-sectional area.
9. The non-pressurized liquid supply system of claim 1 further comprising an intermediate stage having an intermediate stage cross-sectional area and including a plurality of intermediate pipes, the intermediate pipes being selected so that the intermediate stage cross-sectional area is substantially equivalent to the combined outflow stage cross-sectional area.
10. The non-pressurized liquid supply system of claim 1 further comprising a manifold having an inflow end for receiving the at least one inflow pipe, and having an outflow end for receiving the plurality of outflow pipes.
11. The non-pressurized liquid supply system of claim 1 wherein the non-pressurized liquid supply system is selected from the group consisting of: a drainwater system; a waste water system; and a chemical process system.
12. A manifold for use in a non-pressurized liquid supply system for supplying liquid to a plurality of liquid treatment units in which a substantially equivalent cross-sectional area is maintained across pipe stages in the non-pressurized liquid supply system, the manifold comprising:  
an inflow end including at least one inflow connector for receiving an inflow stage having at least one inflow pipe, the inflow stage having an inflow stage cross-

sectional area; and

- an outflow end including a plurality of outflow pipe connectors for receiving a plurality of outflow pipes of an outflow stage, the number of outflow pipe connectors being selected so that an outflow stage cross-sectional area is substantially  
5 equivalent to the inflow stage cross-sectional area.

13. The manifold of claim 12 wherein the outflow end is angled so as to facilitate liquid flow out of the manifold.

- 10 14. The manifold of claim 12 wherein the inflow end is angled so as to facilitate liquid flow into the manifold.

15. The manifold of claim 12 wherein the inflow end comprises one inflow connector, and the outflow connectors are perpendicular to the inflow connector.

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16. The manifold of claim 12 wherein the manifold is selected from the group consisting of: a horizontal manifold; and a vertical manifold.

17. The manifold of claim 12 further comprising an intermediate stage having an  
20 intermediate stage cross-sectional area and including a plurality of intermediate pipes, the intermediate pipes being selected so that the intermediate stage cross-sectional area is substantially equivalent to the outflow stage cross-sectional area.

18. The manifold of claim 17 further comprising an intermediate manifold including  
25 the intermediate stage, the intermediate manifold having an intermediate inflow end for interconnecting the inflow stage and the intermediate stage and an intermediate outflow end for interconnecting the intermediate stage and the outflow stage.

19. The manifold of claim 12 further comprising an intermediate stage having an intermediate stage cross-sectional area, the intermediate pipes being selected so that the intermediate stage cross-sectional area is substantially equivalent to the inflow stage cross-sectional area.

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20. A method of supplying liquid to a plurality of liquid treatment units comprising: receiving a liquid flow via an inflow stage including at least one inflow pipe, the inflow stage having an inflow stage cross-sectional area;

splitting the liquid flow from the inflow stage via an outflow stage, in  
10 communication with the inflow stage, the outflow stage including a plurality of outflow pipes, the outflow pipes splitting water flow from the inflow stage and having an outflow stage cross-sectional area substantially equivalent to the inflow stage cross-sectional area; and

providing the split water flow to the plurality of liquid treatment units.

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